



# BR87

## HYDRAULIC BREAKER



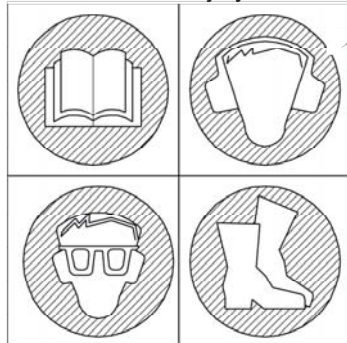
### **⚠ WARNING**

SERIOUS INJURY OR DEATH  
COULD RESULT FROM IM-  
PROPER REPAIR OR SERVICE  
OF THIS TOOL.

REPAIRS AND/OR SERVICE  
TO THIS TOOL MUST ONLY  
BE DONE BY AN AUTHORIZED  
AND CERTIFIED DEALER.

### **⚠ WARNING**

To avoid serious injury or death



## SAFETY, OPERATION AND MAINTENANCE USER'S MANUAL



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**SERVICING THE STANLEY HYDRAULIC breaker.** This manual contains safety, operation, and routine maintenance instructions. Stanley Hydraulic Tools recommends that servicing of hydraulic tools, other than routine maintenance, must be performed by an authorized and certified dealer. Please read the following warning.

<b>⚠ WARNING</b>
<b>SERIOUS INJURY OR DEATH COULD RESULT FROM THE IMPROPER REPAIR OR SERVICE OF THIS TOOL.</b>
<b>REPAIRS AND / OR SERVICE TO THIS TOOL MUST ONLY BE DONE BY AN AUTHORIZED AND CERTIFIED DEALER.</b>

For the nearest authorized and certified dealer, call Stanley Hydraulic Tools at the number listed on the back of this manual and ask for a Customer Service Representative.

# CERTIFICATE OF CONFORMITY

## CERTIFICATE OF CONFORMITY



I, the undersigned:

Winterling, David

Surname and First names

**Hereby certify that the construction plant or equipment specified hereunder:**

1. Manufacturer: Stanley Hydraulic Tools, 3810 Naef Road, Milwaukie, Oregon USA
2. Representative in the Union: Stanley Svenska AB, Box 9054, 400 92 Göteborg, SWEDEN
3. Category: Hydraulic Hand Held Concrete Breaker
4. Make: Stanley Hydraulic Tools
5. Type: BR8713201
6. Type serial number of equipment: ALL
7. Year of manufacture: Beginning 2002

**Has been manufactured in conformity with the provisions of the Machinery Directive 98/37/EC**

Harmonized standard applied: EN 792-4

**We also declare that it meets the specification of Noise Directive 2000/14/EC, measured in accordance to the Conformity Evaluation Method set out in Annex VI para. 5 and evaluated during production as in Annex VI para. 6, 2<sup>nd</sup> procedure.**

8. Noise related value: 38 kg
9. Measured sound power on equipment representative of this type: 110 LwA
10. Guaranteed sound power level for this equipment: 111 LwA
11. Notified body for EC directive 2000/14/EC: 0404

SMP Svensk Maskinprovning AB  
Fyrisborgsgatan 3  
754 50 Uppsala, SWEDEN

12. Special Provisions: None

Issued at Stanley Hydraulic Tools, Milwaukie, Oregon USA  
Date: 8/21/02

Signature

A handwritten signature in black ink, appearing to read "David Winterling".

Position: Engineering Manager

P/N 52575 Rev.2, 1/17/06

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# SAFETY SYMBOLS

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Safety symbols and signal words, as shown below, are used to emphasize all operator, maintenance and repair actions which, if not strictly followed, could result in a life-threatening situation, bodily injury or damage to equipment.



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.



This safety alert and signal word indicate an imminently hazardous situation which, if not avoided, will result in death or serious injury.



This safety alert and signal word indicate a potentially hazardous situation which, if not avoided, could result in death or serious injury.



This safety alert and signal word indicate a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.



This signal word indicates a potentially hazardous situation which, if not avoided, may result in property damage.



This signal word indicates a situation which, if not avoided, will result in damage to the equipment.



This signal word indicates a situation which, if not avoided, may result in damage to the equipment.

Always observe safety symbols. They are included for your safety and for the protection of the tool.

## LOCAL SAFETY REGULATIONS

Enter any local safety regulations here. Keep these instructions in an area accessible to the operator and maintenance personnel.

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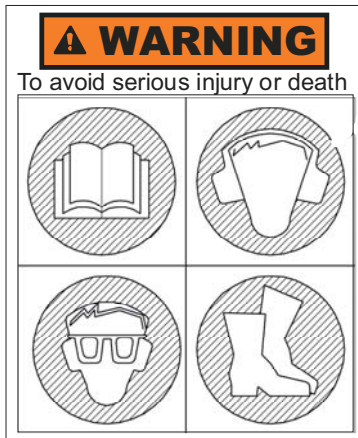
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# SAFETY PRECAUTIONS

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Tool operators and maintenance personnel must always comply with the safety precautions given in this manual and on the stickers and tags attached to the tool and hose.

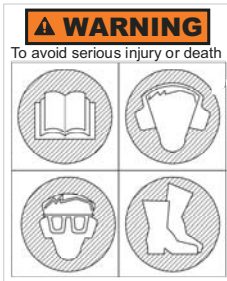
These safety precautions are given for your safety. Review them carefully before operating the tool and before performing general maintenance or repairs.

Supervising personnel should develop additional precautions relating to the specific work area and local safety regulations. If so, place the added precautions in the space provided in this manual.

The BR87 Hydraulic Breaker will provide safe and dependable service if operated in accordance with the instructions given in this manual. Read and understand this manual and any stickers and tags attached to the tool and hoses before operation. Failure to do so could result in personal injury or equipment damage.

- Operator must start in a work area without bystanders. The operator must be familiar with all prohibited work areas such as excessive slopes and dangerous terrain conditions.
- Establish a training program for all operators to ensure safe operation.
- Do not operate the tool unless thoroughly trained or under the supervision of an instructor.
- Always wear safety equipment such as goggles, ear, head protection, and safety shoes at all times when operating the tool.
- Do not inspect or clean the tool while the hydraulic power source is connected. Accidental engagement of the tool can cause serious injury.
- Supply hoses must have a minimum working pressure rating of 2500 psi/175 bar.
- Be sure all hose connections are tight.
- The hydraulic circuit control valve must be in the "OFF" position when coupling or uncoupling the tool. Wipe all couplers clean before connecting. Use only lint-free cloths. Failure to do so may result in damage to the quick couplers and cause overheating of the hydraulic system.
- Do not operate the tool at oil temperatures above 140°F/60°C. Operation at higher oil temperatures can cause operator discomfort and may damage the tool.
- Do not operate a damaged, improperly adjusted, or incompletely assembled tool.
- Do not weld, cut with an acetylene torch, or hardface the tool bit.
- To avoid personal injury or equipment damage, all tool repair, maintenance and service must only be performed by authorized and properly trained personnel.
- Do not exceed the rated limits of the tool or use the tool for applications beyond its design capacity.
- Always keep critical tool markings, such as labels and warning stickers legible.
- Always replace parts with replacement parts recommended by Stanley Hydraulic Tools.
- Check fastener tightness often and before each use daily.
- Never operate the tool if you cannot be sure that underground utilities are not present.
- Do not wear loose fitting clothing when operating the tool.

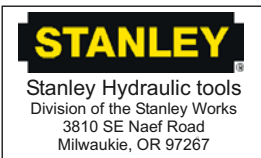
# TOOL STICKERS & TAGS



28409  
Composite Decal



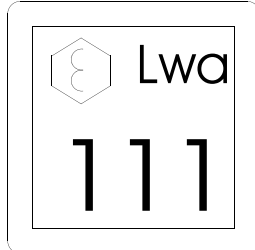
28322  
CE Decal



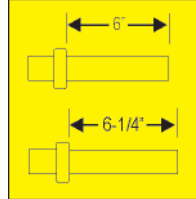
28376  
Stanley Decal



11207  
Circuit Type C Decal



66656  
Sound Level Decal



11208  
Hex Shank Decal



10180  
Caution Decal

## BR87 BREAKER

WEIGHT: 82 lb / 37 kg  
FLOW: 9 gpm / 34 lpm  
PRESSURE: 2000 psi / 140 bar  
EASI-RIDE Pat No. 4614241

28381  
BR87 Name Tag  
(Models BR8713201 & BR8717201 Only)



07892  
BR87 Name Decal

The safety tag (p/n 15875) at right is attached to the tool when shipped from the factory. Read and understand the safety instructions listed on this tag before removal. We suggest you retain this tag and attach it to the tool when not in use.



## DANGER

- FAILURE TO USE HYDRAULIC HOSE LABELED AND CERTIFIED AS NON-CONDUCTIVE WHEN USING HYDRAULIC TOOLS ON OR NEAR ELECTRICAL LINES MAY RESULT IN DEATH OR SERIOUS INJURY.  
BEFORE USING HOSE LABELED AND CERTIFIED AS NON-CONDUCTIVE ON OR NEAR ELECTRICAL LINES BE SURE THE HOSE IS MAINTAINED AS NON-CONDUCTIVE. THE HOSE SHOULD BE REGULARLY TESTED FOR ELECTRIC CURRENT LEAKAGE IN ACCORDANCE WITH YOUR SAFETY DEPARTMENT INSTRUCTIONS.
- A HYDRAULIC LEAK OR BURST MAY CAUSE OIL INJECTION INTO THE BODY OR CAUSE OTHER SEVERE PERSONAL INJURY.
  - DO NOT EXCEED SPECIFIED FLOW AND PRESSURE FOR THIS TOOL. EXCESS FLOW OR PRESSURE MAY CAUSE A LEAK OR BURST.
  - DO NOT EXCEED RATED WORKING PRESSURE OF HYDRAULIC HOSE USED WITH THIS TOOL. EXCESS PRESSURE MAY CAUSE A LEAK OR BURST.
  - CHECK TOOL HOSE COUPLERS AND CONNECTORS DAILY FOR LEAKS. DO NOT FEEL FOR LEAKS WITH YOUR

## IMPORTANT

READ OPERATION MANUAL AND SAFETY INSTRUCTIONS FOR THIS TOOL BEFORE USING IT.

USE ONLY PARTS AND REPAIR PROCEDURES APPROVED BY STANLEY AND DESCRIBED IN THE OPERATION MANUAL.

TAG TO BE REMOVED ONLY BY TOOL OPERATOR.

SEE OTHER SIDE

## DANGER

- DO NOT LIFT OR CARRY TOOL BY THE HOSES. DO NOT ABUSE HOSE. DO NOT USE KINKED, TORN OR DAMAGED HOSE.
- MAKE SURE HYDRAULIC HOSES ARE PROPERLY CONNECTED TO THE TOOL BEFORE PRESSURING SYSTEM. SYSTEM PRESSURE HOSE MUST ALWAYS BE CONNECTED TO TOOL "IN" PORT. SYSTEM RETURN HOSE MUST ALWAYS BE CONNECTED TO TOOL "OUT" PORT. REVERSING CONNECTIONS MAY CAUSE REVERSE TOOL OPERATION WHICH CAN RESULT IN SEVERE PERSONAL INJURY.
- DO NOT CONNECT OPEN-CENTER TOOLS TO CLOSED-CENTER HYDRAULIC SYSTEMS. THIS MAY RESULT IN LOSS OF OTHER HYDRAULIC FUNCTIONS POWERED BY THE SAME SYSTEM AND/OR SEVERE PERSONAL INJURY.
- BYSTANDERS MAY BE INJURED IN YOUR WORK AREA. KEEP BYSTANDERS CLEAR OF YOUR WORK AREA.
- WEAR HEARING, EYE, FOOT, HAND AND HEAD PROTECTION.
- TO AVOID PERSONAL INJURY OR EQUIPMENT DAMAGE, ALL TOOL REPAIR MAINTENANCE AND SERVICE MUST ONLY BE PERFORMED BY AUTHORIZED AND PROPERLY TRAINED PERSONNEL.

## IMPORTANT

READ OPERATION MANUAL AND SAFETY INSTRUCTIONS FOR THIS TOOL BEFORE USING IT.

USE ONLY PARTS AND REPAIR PROCEDURES APPROVED BY STANLEY AND DESCRIBED IN THE OPERATION MANUAL.

TAG TO BE REMOVED ONLY BY TOOL OPERATOR.

SEE OTHER SIDE

SAFETY TAG P/N 15875 (shown smaller than actual size)

# HYDRAULIC HOSE REQUIREMENTS

## HOSE TYPES

Hydraulic hose types authorized for use with Stanley Hydraulic Tools are as follows:

- ❶ Certified non-conductive
- ❷ Wire-braided (conductive)
- ❸ Fabric-braided (not certified or labeled non-conductive)

Hose ❶ listed above is the only hose authorized for use near electrical conductors.

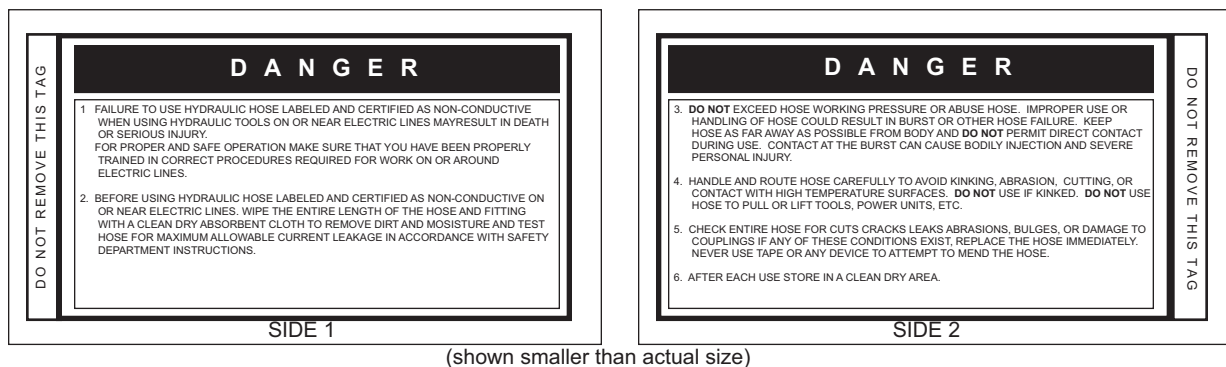
Hoses ❷ and ❸ listed above are **conductive** and **must never** be used near electrical conductors.

## HOSE SAFETY TAGS

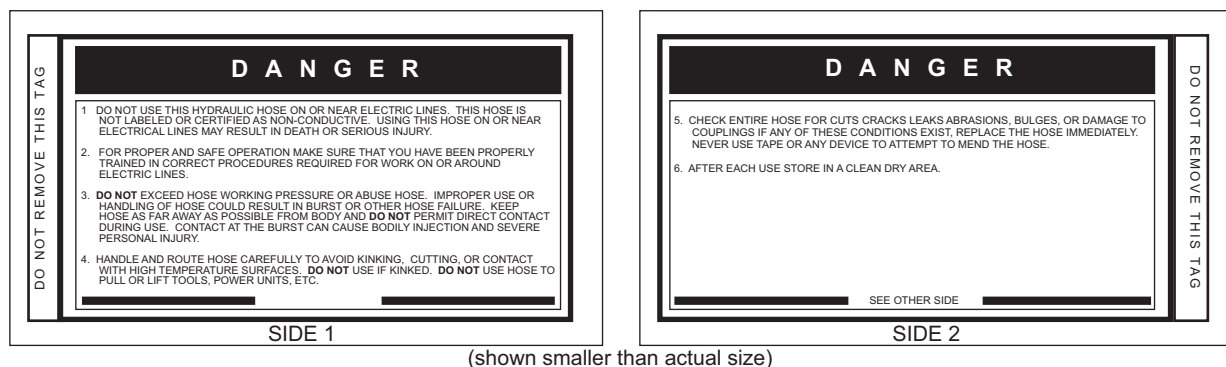
To help ensure your safety, the following DANGER tags are attached to all hose purchased from Stanley Hydraulic Tools. **DO NOT REMOVE THESE TAGS.**

If the information on a tag is illegible because of wear or damage, replace the tag immediately. A new tag may be obtained from your Stanley Distributor.

### THE TAG SHOWN BELOW IS ATTACHED TO “CERTIFIED NON-CONDUCTIVE” HOSE



### THE TAG SHOWN BELOW IS ATTACHED TO “CONDUCTIVE” HOSE.



## HOSE PRESSURE RATING

The rated working pressure of the hydraulic hose **must be equal to or higher than** the relief valve setting on the hydraulic system.



# HTMA REQUIREMENTS

## TOOL CATEGORY



## HYDRAULIC SYSTEM REQUIREMENTS

### TYPE 1

### TYPE II

### TYPE III

### TYPE RR

FLOW RATE	4-6 gpm (15-23 lpm)	7-9 gpm (26-34 lpm)	11-13 gpm (42-49 lpm)	9-10.5 gpm (34-40 lpm)
TOOL OPERATING PRESSURE (at the power supply outlet)	2000 psi (138 bar)	2000 psi (138 bar)	2000 psi (138 bar)	2000 psi (138 bar)
SYSTEM RELIEF VALVE SETTING (at the power supply outlet)	2100-2250 psi (145-155 bar)	2100-2250 psi (145-155 bar)	2100-2250 psi (145-155 bar)	2200-2300 psi (152-159 bar)
MAXIMUM BACK PRESSURE (at tool end of the return hose)	250 psi (17 bar)	250 psi (17 bar)	250 psi (17 bar)	250 psi (17 bar)
Measured at a max. fluid viscosity of: (at min. operating temperature)	400 ssu* (82 centistokes)	400 ssu* (82 centistokes)	400 ssu* (82 centistokes)	400 ssu* (82 centistokes)
TEMPERATURE Sufficient heat rejection capacity to limit max. fluid temperature to: (at max. expected ambient temperature)	140° F (60° C)	140° F (60° C)	140° F (60° C)	140° F (60° C)
Min. cooling capacity at a temperature difference of between ambient and fluid temps	3 hp (2.24 kW) 40° F (22° C)	5 hp (3.73 kW) 40° F (22° C)	7 hp (4.47 kW) 40° F (22° C)	6 hp (5.22 kW) 40° F (22° C)
<b>NOTE:</b> Do not operate the tool at oil temperatures above 140° F (60° C). Operation at higher temperatures can cause operator discomfort at the tool.				
FILTER Min. full-flow filtration Sized for flow of at least: (For cold temp. startup and max. dirt-holding capacity)	25 microns 30 gpm (114 lpm)	25 microns 30 gpm (114 lpm)	25 microns 30 gpm (114 lpm)	25 microns 30 gpm (114 lpm)
HYDRAULIC FLUID Petroleum based (premium grade, anti-wear, non-conductive) VISCOSITY (at min. and max. operating temps)	100-400 ssu*	100-400 ssu* (20-82 centistokes)	100-400 ssu*	100-400 ssu*
<b>NOTE:</b> When choosing hydraulic fluid, the expected oil temperature extremes that will be experienced in service determine the most suitable temperature viscosity characteristics. Hydraulic fluids with a viscosity index over 140 will meet the requirements over a wide range of operating temperatures.				

\*SSU = Saybolt Seconds Universal

## NOTE:

These are general hydraulic system requirements. See tool Specification page for tool specific requirements.

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# OPERATION

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The recommended hose size is .500 inch/12 mm I.D. up to 50 ft/15 m long and .625 inch/16 mm I.D. minimum up to 100 ft/30 m.

## PRE-OPERATION PROCEDURES

### CHECK POWER SOURCE

1. Using a calibrated flowmeter and pressure gauge, check that the hydraulic power source develops a flow of 7-9 gpm/26-34 lpm at 1500-2000 psi/105-140 bar.
2. Make certain the hydraulic power source is equipped with a relief valve set to open at 2100-2250 psi/145-155 bar maximum.

### INSTALL TOOL BIT

1. Rotate the latch on the breaker foot downward (pointing away from the tool).
2. Insert the tool bit into the foot and pull the latch up to lock the tool bit in place.

### CONNECT HOSES

1. Wipe all hose couplers with a clean, lint-free cloth before making connections.
2. Connect the hoses from the hydraulic power source to the tool fittings or quick disconnects. It is a good practice to connect return hoses first and disconnect them last to minimize or avoid trapped pressure within the tool.
3. Observe flow indicators stamped on hose couplers to ensure that fluid flow is in the proper direction. The female coupler on the tool hose is the inlet coupler.
4. Move the hydraulic circuit control valve to the ON position to operate the tool.

#### NOTE:

**If uncoupled hoses are left in the sun, pressure increase within the hoses may make them difficult to connect. When possible, connect the free ends of the hoses together.**

## OPERATION PROCEDURES

1. Observe all safety precautions.
2. Install the appropriate tool bit for the job.

3. Place the bit firmly on the surface to be broken.

4. Squeeze the trigger to start the breaker. Adequate down pressure is very important. When the tool bit breaks through the obstruction or becomes bound, release the trigger and reposition the tool bit.

#### NOTE:

**Partially depressing the trigger allows the tool to run at slow speed. Slow-speed operation permits easier starting of the tool bit into the work surface.**

5. To start, break an opening (hole) in the center of the surface. After making a hole, break portions of the material into the original opening. For best productivity, the breaking should be done around the original hole.

The size of the broken material will vary with the strength and thickness of the base material and the amount of any reinforcement wire or rebar.

Harder material or more reinforcing wire or rebar will require taking smaller bites. To determine the most effective bite, start with 2 in. / 50 mm or smaller bites.

Bites can then be gradually increased until the broken piece becomes too large, requiring increased time to break off the piece.

Sticking of the tool bit occurs when too large a bite is being taken and the tool bit hammers into the material without the material fracturing. This causes the tool bit to become trapped in the surrounding material.

6. The underwater model requires preventative maintenance after each day's use underwater and prior to being placed in storage. See the General Service Notes section in this manual for this maintenance procedure.

## COLD WEATHER OPERATION

If the breaker is to be used during cold weather, preheat the hydraulic fluid at low engine speed. When using the normally recommended fluid, fluid temperature should be at or above 50° F/10° C (400 ssu/82 centistokes) before use.

Damage to the hydraulic system or breaker can result from use with fluid that is too viscous or thick.

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# EQUIPMENT PROTECTION & CARE

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## NOTICE

In addition to the Safety Precautions found in this manual, observe the following for equipment protection and care.

- Make sure all couplers are wiped clean before connection.
- The hydraulic circuit control valve must be in the “OFF” position when coupling or uncoupling hydraulic tools. Failure to do so may result in damage to the quick couples and cause overheating of the hydraulic system.
- Always store the tool in a clean dry space, safe from damage or pilferage.
- Make sure the circuit PRESSURE hose (with male quick disconnect) is connected to the “IN” port. The circuit RETURN hose (with female quick disconnect) is connected to the opposite port. Do not reverse circuit flow. This can cause damage to internal seals.
- Always replace hoses, couplings and other parts with replacement parts recommended by Stanley Hydraulic Tools. Supply hoses must have a minimum working pressure rating of 2500 psi/172 bar.
- Do not exceed the rated flow (see Specifications in this manual for correct flow rate and model number). Rapid failure of the internal seals may result.
- Always keep critical tool markings, such as warning stickers and tags legible.
- Do not force a small breaker to do the job of a large breaker.
- Keep tool bit sharp for maximum breaker performance. Make sure that tool bits are not chipped or rounded on the striking end.
- Never operate a breaker without a tool bit or without holding it against the work surface. This puts excessive strain on the breaker foot.
- Tool repair should be performed by experienced personnel only.
- Make certain that the recommended relief valves are installed in the pressure side of the system.
- Do not use the tool for applications for which it was not intended.

# TROUBLESHOOTING

PROBLEM	CAUSE	REMEDY
Tool does not run.	Power unit not functioning.	Check power unit for proper flow and pressure (7-9 gpm/26-34 lpm, 1500-2000 psi/105-140 bar).
	Couplers or hoses blocked.	Remove restriction.
	Pressure and return line hoses reversed at ports.	Be sure hoses are connected to their proper ports.
	Mechanical failure of piston or automatic valve.	Disassemble breaker and inspect for damaged parts.
Tool does not hit effectively.	Power unit not functioning.	Check power unit for proper flow and pressure (7-9 gpm/26-34 lpm, 1500-2000 psi/105-140 bar).
	Couplers or hoses blocked.	Remove restriction.
	Low accumulator charge (pressure hose will pulse more than normal).	Recharge accumulator. Replace diaphragm if charge loss continues.
	Fluid too hot (above 140°F/60°C).	Provide cooler to maintain proper fluid temperature (130°F/55°C).
	The collar support is not sliding freely in the foot bore.	Remove, clean and replace as required. Make sure hex bushing is in the proper location.
Tool operates slow.	Low gpm supply from power unit.	Check power unit for proper flow (7-9 gpm/26-34 lpm).
	High backpressure.	Check hydraulic system for excessive backpressure (over 250 psi/17 bar).
	Couplers or hoses blocked.	Remove restriction.
	Orifice plug blocked.	Remove restriction.
	Fluid too hot (above 140°F/60°C) or too cold (below 60°F/16°C).	Check power unit for proper fluid temperature. Bypass cooler to warm the fluid or provide cooler to maintain proper temperature.
	The collar support is not sliding freely in the foot bore.	Remove, clean and replace as required. Make sure hex bushing is in the proper location.
	Relief valve set too low.	Adjust relief valve to 2100-2250 psi/145-155 bar.
Tool gets hot.	Hot fluid going through tool.	Check power unit. Be sure flow rate is not too high causing part of the fluid to go through the relief valve. Provide cooler to maintain proper fluid temperature (140°F/60°C max). Check the relief valve setting. Eliminate flow control devices.
Fluid leakage on tool bit.	Lower piston seal failure.	Replace seal.
Fluid leakage through charge valve cap.	Upper piston seal failure or accumulator o-ring failure or accumulator charge loss or failure.	Replace seals, recharge or replace accumulator diaphragm.
Fluid leakage around trigger.	Valve spool seal failure.	Replace seals.

---

# CHARGING THE ACCUMULATOR

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## ACCUMULATOR TESTING PROCEDURE

To check or charge the accumulator the following equipment is required:

31254 Charge Kit: which includes the following.

- Accumulator Tester (Part Number 02835).
- Charging Assembly (Part Number 15304). (p/n 15304 includes a liquid filled gauge with snub valve, hose and fittings.)

- NITROGEN bottle with an 1000 psi/70 bar minimum charge. (Not included in 31254 Charge Kit.)

1. Remove the valve cap assembly from the breaker.
2. Remove the protective cap and loosen the 5/8-inch hex locking nut on the tool charging valve 1-1/2 turns.
3. Holding the chuck end of Accumulator Tester (Part Number 02835) turn the gauge fully counterclockwise to ensure that the stem inside the chuck is completely retracted.
4. Thread the tester onto the accumulator charging valve. Do not advance the gauge-end into the chuck-end. Turn as a unit. Seat the chuck on the accumulator charging valve and hand tighten only.
5. Advance the valve stem of the tester by turning the gauge-end clockwise until a pressure is read on the gauge (charge pressure should be 700-900 psi/48-62 bar).
6. If pressure is OK unscrew the gauge-end from the chuck to retract the stem, then unscrew the entire tester assembly from the accumulator charging valve. If pressure is low, charge the accumulator as described in the following paragraph.
7. Tighten the 5/8-inch hex locking nut on the tool charging valve. Be careful not to overtighten. Install the protective cap and valve cap assembly.

---

## ACCUMULATOR CHARGING

1. Perform steps 1 through 4 of the accumulator testing procedure above.
2. Connect the chuck of the charging assembly to the charging valve on the accumulator tester or, if preferred, remove the tester from the charging valve and connect the charging assembly chuck directly to the charging valve.

3. Adjust the regulator to the charging pressure of 800 psi/55 bar.

### NOTE:

**It may be necessary to set the gauge at 850-900 psi/59-62 bar to overcome any pressure drop through the charging system.**

4. Open the valve on the charging assembly hose.
5. When the accumulator is fully charged close the valve on the charging assembly hose and remove the charging assembly chuck from the accumulator tester or tool charging valve.
6. If the accumulator tester has been used, be sure to turn the gauge-end fully counterclockwise before removing the tester from the charging valve of the tool.
7. Tighten the 5/8-inch hex locking nut on the tool charging valve and replace the protective cap.
8. Replace the valve cap assembly.

---

## GENERAL SERVICE NOTES

1. If the breaker is repainted after servicing, be sure to mask off the vent in the valve cap assembly. Do not allow paint to enter the IN and OUT ports or the bore of the foot assembly.
2. If the handle grips need to be replaced.
  - a. Remove the old grips and clean the handle.
  - b. Wash the new grips and the handle clean and dry, simply push or drive the grips on. DO NOT lubricate the parts. The grips will not be secure on the handle if any grease or oil is used.

# CHARGING THE ACCUMULATOR

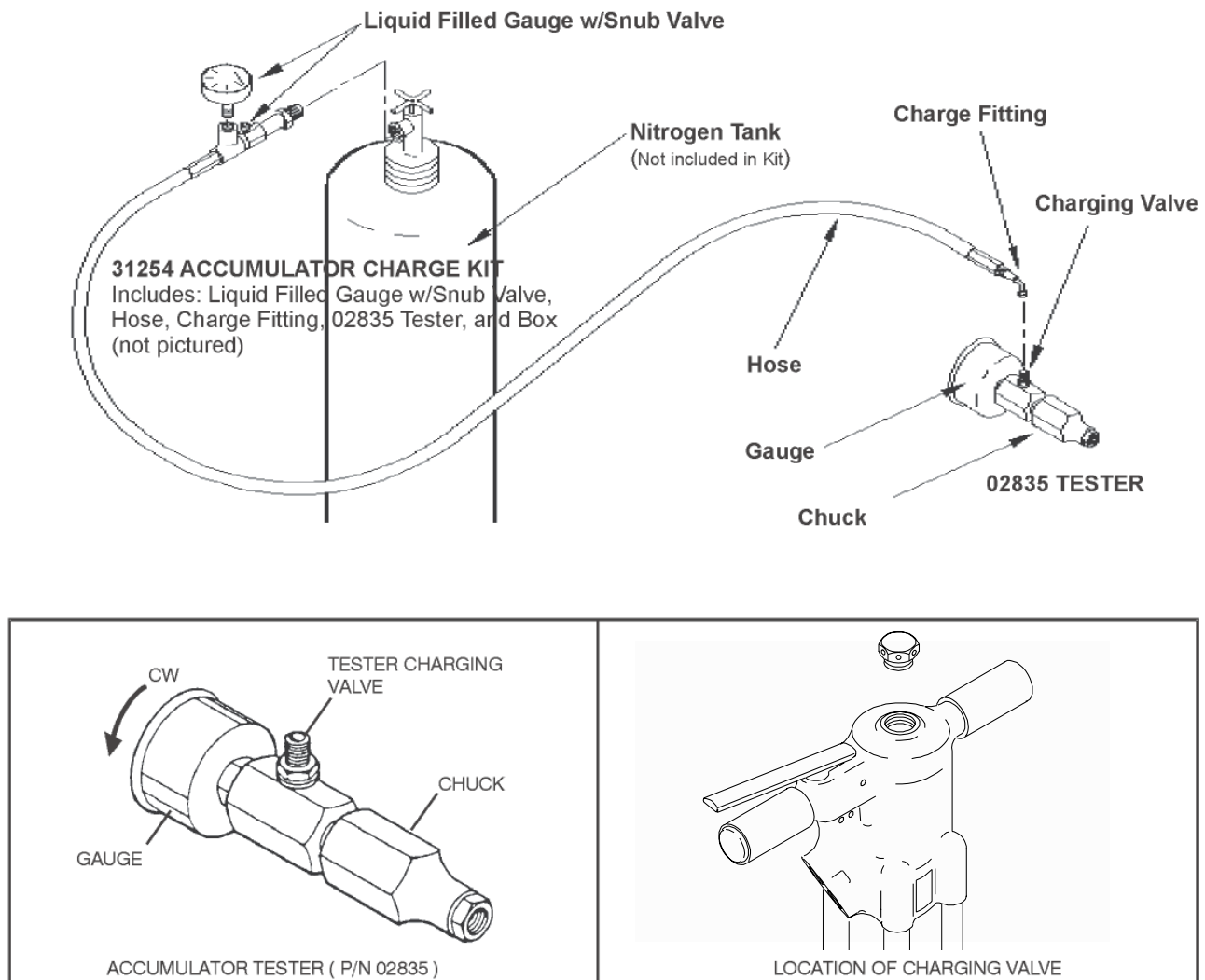


Figure 2

## UNDERWATER MODEL PREVENTATIVE MAINTENANCE

After each use, the movable portions of the tool that were exposed to water should be flushed with a water displacing oil such as WD40. Remove any remaining water and debris as follows:

1. Turn the tool upside down (without the tool bit) and spray

oil through the drive hex and side holes in the breaker foot assembly to displace any remaining water in the lower piston cavity.

2. Spray oil into the On/Off valve trigger slot area.

3. Dip or spray the entire tool.

4. Cycle the tool hydraulically several times before storing away.

---

# SPECIFICATIONS

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Pressure Range .....	1500-2000 psi/105-140 bar
Flow Range .....	7-9 gpm / 26-34 lpm
Optimum Flow .....	8 gpm / 30 lpm
Maximum Back Pressure .....	250 Psi/17 bar
Connect Size & Type .....	3/8 in. Male Pipe Hose Ends
Weight .....	80 lbs / 36 kg
Length .....	27 in. / 68 cm
Width .....	16 in. / 40 cm
System Type.....	Open or Closed Center
	HTMA Type II
Port Size .....	SAE 8 o-ring
Guaranteed Sound Power Level .....	111 dBA
Sound Pressure Level at Operator .....	102 dBA
Vibration Level .....	21.5 m/sec <sup>2</sup>

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# ACCESSORIES

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## 1-1/8 in. Hex x 6 in. Shank

Moil Point, 14 in. Long UC .....	02333
Chisel Point, 14 in. Long UC .....	03990
3-inch Chisel, 14 in. Long UC .....	02334
Clay Spade, 5-1/2 in. Blade .....	02331
Asphalt Cutter, 5 in. Blade, 11 in. Long .....	02332
Asphalt Wedge .....	08106
Ground Rod Driver, 1-in. Rod .....	04176

## 1-1/4 in. Hex x 6 in. Shank

Asphalt Cutter, 5 in. Blade, 11 in. Long UC .....	02335
Moil Point, 14 in. Long UC .....	02336
3-inch Chisel, 14 in. Long UC .....	02337
1- inch Chisel, Heavy Duty, 14 in. Long UC .....	02338
Ground Rod Driver, 1 in. Rod .....	04367
Moil Point, Heavy Duty, 18 in. Long UC .....	04404
Clay Spade, 8 in./20 cm Blade .....	04405
Asphalt Wedge .....	08119
Clay Spade, 5-1/2 in. Blade .....	09262

## Test Equipment

Accumulator Tester .....	02835
Flow and Pressure Tester .....	04182
Accumulator Charge Kit (Includes 02835 Tester, 15304 Accumulator Charge Assy and 372047 Box) .....	31254
Accumulator Charge Assy (Incl. Liquid Filled Gauge with Valve, Hose and Charge Fitting) .....	15304

UC denotes dimension measured from bttom tip of tool to bottom surface of collar.

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# SERVICE TOOLS

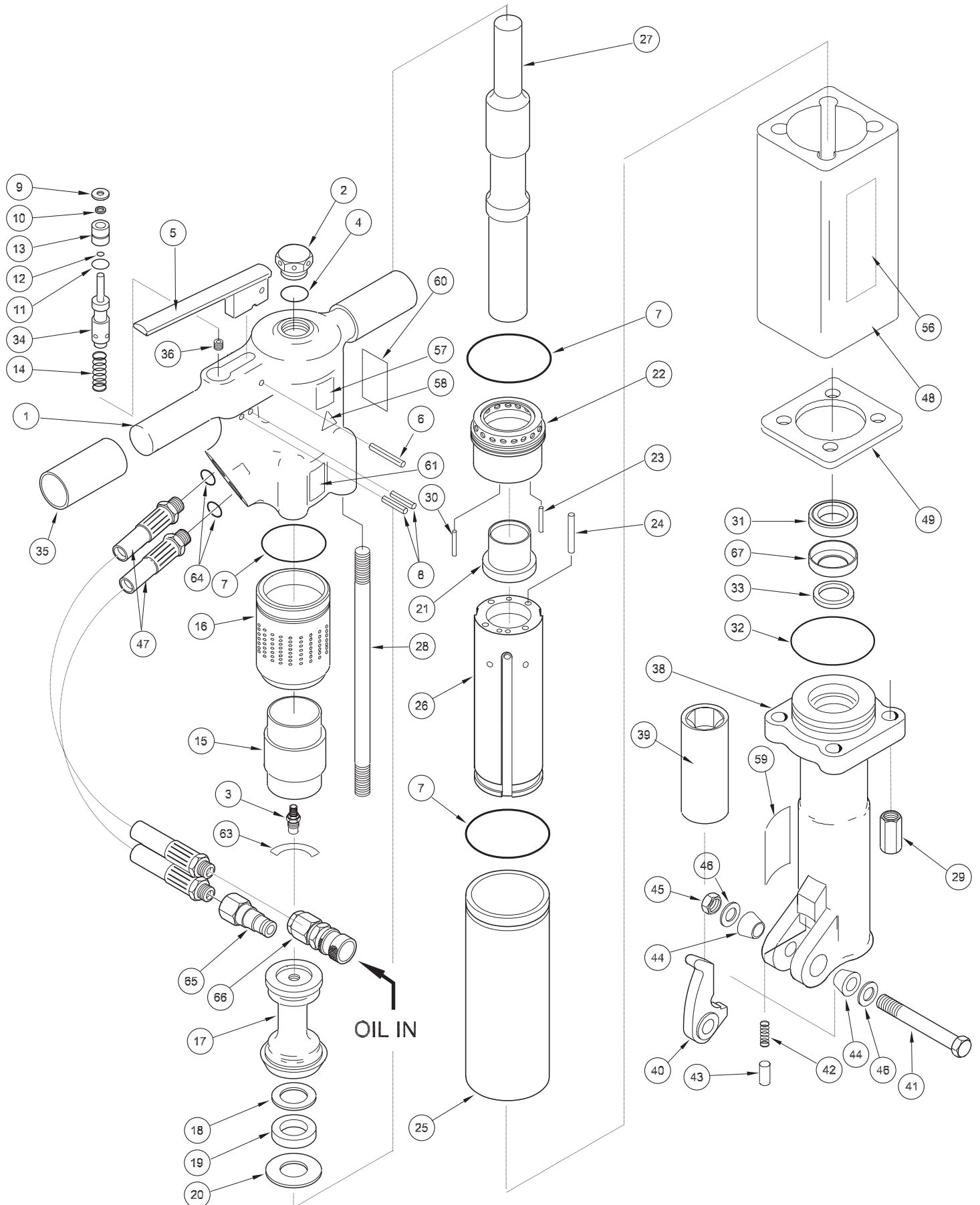
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O-Ring Tool Kit .....	04337
Seal Kit .....	05485
Accumulator Disassembly Tool .....	05508
Accumulator cylinder Puller .....	05640
Split Rings .....	04908
Flow Sleeve Installation Spacer .....	04909
Flow Sleeve Removal Tube .....	04910

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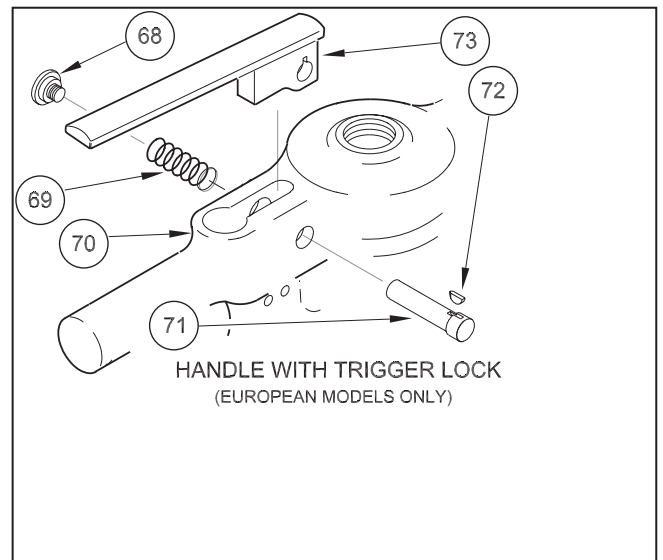
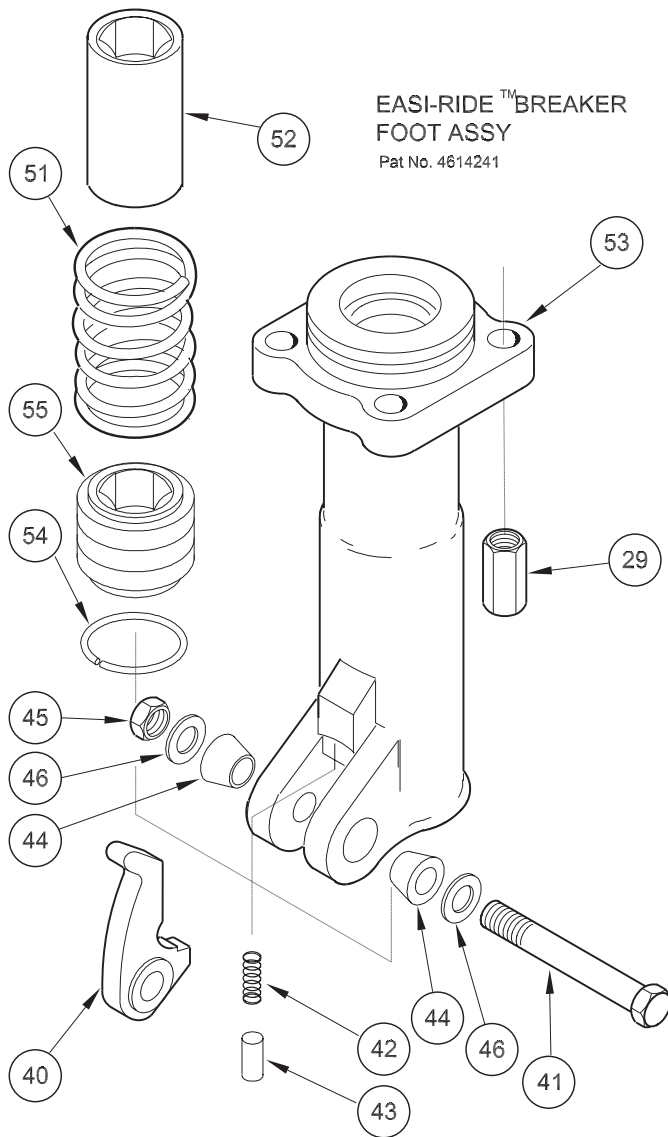


# BR87 PARTS ILLUSTRATION





# BR87 PARTS ILLUSTRATION



# BR87 PARTS LIST

Item No.	Part No.	Qty	Description
1	06185 11435	1	Handle Assy. (Incl. Item 35) Breaker Handle (Trigger Lock Models Only)
2	04050	1	Valve Cap Assy.
3	04051	1	Charging Valve
4	04052	1	O-Ring
5	04053 11434	1	Trigger Trigger (Trigger Lock Models Only)
6	00844	1	Spirol Pin
7	04054	3	O-Ring
8	22891	2	Spirol Pin, 3/16 x 1-5/8
9	04055	1	Washer
10	04056	1	Rod Wiper
11	00293	1	O-Ring
12	01362	1	O-Ring
13	04057	1	Bushing
14	04058	1	Spring
15	04059	1	Accumulator Diaphragm
16	04060	1	Accumulator Cylinder
17	05309	1	Accumulator Chamber Assy.
	<b>06889</b>	<b>1</b>	<b>Accumulator Assembly (Incl. Items 3, 7, 15 thru 19)</b>
18	05301	1	Back-up Washer
19	05307	1	Cup Seal
20	04064	1	Washer
21	04065	1	Automatic Valve
22	04066	1	Automatic Valve Body
23	04571	2	Push Pin, 3/16 x 1-1/4
24	04067	4	Push Pin, 5/16 x 2
25	04068	1	Flow Sleeve Tube
26	04069	1	Flow Sleeve
27	16812	1	Piston
28	04071	4	Side Rod
29	04075	4	Side Rod Nut
30	07890	1	Roll Pin, 3/16 x 1-1/2
31	34127	1	Cup Seal
32	04073	1	O-Ring
33	04074	1	Rod Wiper
34	04077	1	Valve Spool, OC
35	02494	2	Handle Grip
36	05465	1	Orifice Plug
37	05466 05467	1	Foot Assy. 1-1/8 Hex (Incl. Items 31-33 & 38-46 and 67) Foot Assy. 1-1/4 Hex (Incl. Items 31-33 & 38-46 and 67)
38	05484	1	Foot Assy. (Incl. Items 33-67)
	<b>07523</b>	<b>1</b>	<b>Easi-Ride™ Foot Assy. 1-1/8 Hex (Incl. Items 33, 40 thru 46 and 51 thru 55)</b>
	<b>07486</b>	<b>1</b>	<b>Easi-Ride™ Foot Assy. 1-1/4 Hex (Incl. Items 33, 40 thru 46 and 51 thru 55)</b>
39	04081 04597	1	Hex Bushing, 1-1/8 Hex Hex Bushing, 1-1/4 Hex
40	01837	1	Latch
41	04983	1	Bolt

Item No.	Part No.	Qty	Description
42	01744	1	Spring
43	01745 08411	1	Detent, 1.000 OAL, (Serial No. 1707 and Below) Detent, 1.250 OAL, (Serial No. 1708 and Above)
44	01269	2	Rubber Sleeve, 1.000
45	04984	1	Stop Nut
46	04985	2	Spring Washer
47	09546	2	Pigtail Hose Assy.
48	05265	1	Flow Sleeve Housing
49	24666	1	Elastometric Spacer
51	07515	1	Spring
52	07517 07518	1	Hex Bushing, 1-1/8 Hex Bushing, 1-1/4
53	11614	1	Breaker Foot Assy.
54	07522	1	Retaining Ring
55	08115 08116	1	Collar Support Assy. 1-1/8 w/Wear Rings Collar Support Assy. 1-1/4 w/Wear Rings
56	07892 28381	1	Nameplate Decal Nameplate Decal (BR8713201 & BR8717201 Only)
57	28322	1	CE Decal
58	11207	1	Circuit Type "D" Decal
59	11208	1	Hex Shank Length Decal
60	66656	1	Sound Power Level Decal
61	28409	1	Composite Decal
62	---	-	No Item
63	10180	1	Caution Decal
64	01605	2	O-Ring (Incl. with Item 47)
65	03973	1	Flush Face Coupler, Male
66	03972	1	Flush Face Coupler, Female
	24069	1	Coupler Set (Used on BR87130E and BR87120)
67	05464	1	Seal Insert
68	01003	1	Button
69	11430	1	Spring
70	11435	1	Handle
71	11431	1	Lock Pin
72	11432	1	Key
73	11434	1	Trigger

## SEAL KIT PART NUMBER 05485

Part No.	Qty	Description
00293	1	O-Ring
00678	1	O-Ring
01362	1	O-Ring
01605	2	O-Ring
04052	1	O-Ring
04054	3	O-Ring
04056	1	Rod Wiper
04073	1	O-Ring
04074	1	Rod Wiper
05307	1	Cup Seal
05641	1	O-Ring
34127	1	Cup Seal

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# WARRANTY

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Stanley Hydraulic Tools (hereinafter called "Stanley"), subject to the exceptions contained below, warrants new hydraulic tools for a period of one year from the date of sale to the first retail purchaser, or for a period of 2 years from the shipping date from Stanley, whichever period expires first, to be free of defects in material and/or workmanship at the time of delivery, and will, at its option, repair or replace any tool or part of a tool, or new part, which is found upon examination by a Stanley authorized service outlet or by Stanley's factory in Milwaukie, Oregon to be DEFECTIVE IN MATERIAL AND/OR WORKMANSHIP.

## EXCEPTIONS FROM WARRANTY

**NEW PARTS:** New parts which are obtained individually are warranted, subject to the exceptions herein, to be free of defects in material and/or workmanship at the time of delivery and for a period of 6 months after the date of first usage. Seals and diaphragms are warranted to be free of defects in material and/or workmanship at the time of delivery and for a period of 6 months after the date of first usage or 2 years after the date of delivery, whichever period expires first. Warranty for new parts is limited to replacement of defective parts only. Labor is not covered.

**FREIGHT COSTS:** Freight costs to return parts to Stanley, if requested by Stanley for the purpose of evaluating a warranty claim for warranty credit, are covered under this policy if the claimed part or parts are approved for warranty credit. Freight costs for any part or parts which are not approved for warranty credit will be the responsibility of the individual.

**SEALS & DIAPHRAGMS:** Seals and diaphragms installed in new tools are warranted to be free of defects in material and/or workmanship for a period of 6 months after the date of first usage, or for a period of 2 years from the shipping date from Stanley, whichever period expires first.

**CUTTING ACCESSORIES:** Cutting accessories such as breaker tool bits are warranted to be free of defects in material and or workmanship at the time of delivery only.

**ITEMS PRODUCED BY OTHER MANUFACTURERS:** Components which are not manufactured by Stanley and are warranted by their respective manufacturers.

- a. Costs incurred to remove a Stanley manufactured component in order to service an item manufactured by other manufacturers.

**ALTERATIONS & MODIFICATIONS:** Alterations or modifications to any tool or part. All obligations under this warranty shall be terminated if the new tool or part is altered or modified in any way.

**NORMAL WEAR:** any failure or performance deficiency attributable to normal wear and tear such as tool bushings, retaining pins, wear plates, bumpers, retaining rings and plugs, rubber bushings, recoil springs, etc.

**INCIDENTAL/CONSEQUENTIAL DAMAGES:** To the fullest extent permitted by applicable law, in no event will STANLEY be liable for any incidental, consequential or special damages and/or expenses.

**FREIGHT DAMAGE:** Damage caused by improper storage or freight handling.

**LOSS TIME:** Loss of operating time to the user while the tool(s) is out of service.

**IMPROPER OPERATION:** Any failure or performance deficiency attributable to a failure to follow the guidelines and/or procedures as outlined in the tool's operation and maintenance manual.

**MAINTENANCE:** Any failure or performance deficiency attributable to not maintaining the tool(s) in good operating condition as outlined in the Operation and Maintenance Manual.

**HYDRAULIC PRESSURE & FLOW, HEAT, TYPE OF FLUID:** Any failure or performance deficiency attributable to excess hydraulic pressure, excess hydraulic back-pressure, excess hydraulic flow, excessive heat, or incorrect hydraulic fluid.

**REPAIRS OR ALTERATIONS:** Any failure or performance deficiency attributable to repairs by anyone which in Stanley's sole judgement caused or contributed to the failure or deficiency.

**MIS-APPLICATION:** Any failure or performance deficiency attributable to mis-application. "Mis-application" is defined as usage of products for which they were not originally intended or usage of products in such a manner which exposes them to abuse or accident, without first obtaining the written consent of Stanley. PERMISSION TO APPLY ANY PRODUCT FOR WHICH IT WAS NOT ORIGINALLY INTENDED CAN ONLY BE OBTAINED FROM STANLEY ENGINEERING.

**WARRANTY REGISTRATION:** STANLEY ASSUMES NO LIABILITY FOR WARRANTY CLAIMS SUBMITTED FOR WHICH NO TOOL REGISTRATION IS ON RECORD. In the event a warranty claim is submitted and no tool registration is on record, no warranty credit will be issued without first receiving documentation which proves the sale of the tool or the tools' first date of usage. The term "DOCUMENTATION" as used in this paragraph is defined as a bill of sale, or letter of intent from the first retail customer. A WARRANTY REGISTRATION FORM THAT IS NOT ALSO ON RECORD WITH STANLEY WILL NOT BE ACCEPTED AS "DOCUMENTATION".

## NO ADDITIONAL WARRANTIES OR REPRESENTATIONS

This limited warranty and the obligation of Stanley thereunder is in lieu of all other warranties, expressed or implied including merchantability or fitness for a particular purpose except for that provided herein. There is no other warranty. This warranty gives the purchaser specific legal rights and other rights may be available which might vary depending upon applicable law.



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